[0037] Implementation specifics for the header-implemented example (above) are not meant to constrain the scope of the invention, but to illustrate one possible implementation scheme. Other implementation schemes and derivatives are contemplated.

[0038] FIG. **4** is a flow chart of a method **400** for embedding a unique serial number into the content of an email for tracking information dispersion in accordance with an embodiment of the inventive arrangements disclosed herein. Method **400** can begin in step **410**, where a user can write an email they would like to send in an email client. In step **412**, the user can activate the process of embedding a serial number or serial numbers into the email and configure the initial settings. The user can activate the process of embedding the serial number or numbers in context with button **208** of system **200**. The user can configure the initial settings in context with dispersion tracking configuration **250** of system **200**. In step **414**, the application can search the email content for replaceable words and punctuation and can optionally display the results to the user. The results can be displayed to the user in context with information dispersion tracking configuration **305** of system **300**. A configurable option to enable/disable search results of replaceable words can be included in one embodiment of the invention. In step **416**, the user can select a word to replace in the email content. The application can already display the replaceable words differently to show the user their options. In step **418**, a list of substitution words can be retrieved and displayed to the user. In some embodiments, the substitution words can be synonyms retrieved from a thesaurus. In step **420**, the user can select a word or words to be used to substitute the word selected in step **416**. In step **422**, the system can determine if the user is finished defining words to substitute in the email content.

[0039] If in step **422**, the user is not completed, method **400** can return to step **416**, where the user can select another word for substitution in the email content. If in step **422**, the user is completed, method **400** can continue to step **424**, where the user can optionally preview each substitution in the email content before continuing. Previewing each substitution can prevent substitutions from being allowed when they change the meaning or the content or do not have a good enough fit in the content. In this step, if the user chooses to preview each substitution, the user can accept or reject each possible substitution for the email content. In step **426**, the application can check to make sure enough serials can be generated by the words to be replaced to match the requested number of serials. In one embodiment, this checking can be performed dynamically "on the fly," where a visual cue is presented to a user (e.g., a status display element) that indicates if enough words have been replaced to generate needed serials.

[0040] If in step **426**, the application can not generate enough serials, method **400** can alert the user and return to step **414**, where the application can search the email content for replaceable words and punctuation and displays the results to the user. If in step **426**, the application can generate enough serials, method **400** can continue to step **428** where a mail header can be generated and attached to the mail that details the replaced words and their locations. In step **430**, the mail header and body can be encrypted with a key only the receiving client or clients can decrypt. A key can be any key usable for encryption. One such example can be a public key infrastructure (PKI) key. These keys are split into a public and private key, where a private key is kept and a public key is distributed. When the keys are combined, they can allow the decryption of encrypted data. In step **432**, mails can be sent to each person on the mailing list with associated substitutions of the words to be replaced.

[0041] The present invention may be realized in hardware, software, or a combination of hardware and software. The present invention may be realized in a centralized fashion in one computer system, or in a distributed fashion where different elements are spread across several interconnected computer systems. Any kind of computer system or other apparatus adapted for carrying out the methods described herein is suited. A typical combination of hardware and software may be a general purpose computer system with a computer program that, when being loaded and executed, controls the computer system such that it carries out the methods described herein.

[0042] The present invention also may be embedded in a computer program product, which comprises all the features enabling the implementation of the methods described herein, and which when loaded in a computer system is able to carry out these methods. Computer program in the present context means any expression, in any language, code or notation, of a set of instructions intended to cause a system having an information processing capability to perform a particular function either directly or after either or both of the following: a) conversion to another language, code or notation; b) reproduction in a different material form.

[0043] This invention may be embodied in other forms without departing from the spirit or essential attributes thereof. Accordingly, reference should be made to the following claims, rather than to the foregoing specification, as indicating the scope of the invention.

What is claimed is:

1. A method of tracking email dispersion through content substitution comprising:

identifying a set of email receiving entities for an email dispersion;

identifying textual content of an email for the email dispersion;

programmatically determining a plurality of words within textual content;

generating a set of replacement words for each of the determined words;

for each email receiving entity, programmatically substituting at least one replacement word for it's equivalent to generate an entity specific message, wherein each entity specific message contains a unique combination of substitutions so that no two entity specific message are identical;

maintaining a record of which email receiving entities are associated with which entity specific message; and

conveying the entity specific messages to the set of email receiving entities.

2. The method of claim **1**, further comprising:

generating a unique serial number for each entity specific message, wherein said unique serial number is generated based on a mathematical calculation having variable for a position and a value of the replacement words included in the associated entity specific message, wherein the maintaining step records a plurality of records, one for each of the entity specific messages, wherein each record comprises a unique identifier for the entity specific message and comprises the unique number generated for the entity specific message.